

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-15 are pending in the present application, Claims 12 and 13 having been withdrawn, Claims 1, 3, 4, 8, and 10 having been amended, Claims 14 and 15 having been added, and Claim 9 having been canceled without prejudice or disclaimer. Support for the amendment to claims is found, for example, in the specification at page 12 and in Fig.1. Accordingly, no new matter is added.

In the outstanding Office Action, the drawings were objected to for not showing every element of the claims; and Claims 1-11 were rejected under 35 U.S.C. §103(a) as unpatentable over Ito et al. (U.S. Patent No. 5,748,179, hereinafter Ito) in view of Hotta et al. (U.S. Patent 6,245,175, hereinafter Hotta).

With respect to the objection to the drawings, Applicants respectfully submit that the figures show every element of the claims as amended.

In a non-limiting embodiment, Fig.1 shows an inspection pad 8 that is covered by an anisotropic conductive film 13. The specification at page 8, lines 20-21 states "an anisotropic conductive film (ACF) 13 formed by resin." Fig. 1 also shows wiring substrate 14 and an input pad 11 electrically connected by the anisotropic conductive film 13. Fig.1 also shows wiring substrate 14 covering the input pad 11, with the anisotropic conductive film 13 interposed therebetween.

Therefore, Applicants respectfully submit that the current figures show every element of the claims as amended.

Before turning to the prior art rejection, it is believed that a brief review of the claimed invention would be helpful. Amended Claim 1 includes, *inter alia*, a signal line for transmitting a signal to a pixel formed in a display area composed of pixels on the insulating

substrate, a driver integrated circuit (IC) mounted outside of the display area of the insulating substrate and electrically connected to the signal line, an inspection pad formed outside of the display area of the insulating substrate, electrically connected to the signal line, and covered with resin, and a wiring substrate for inputting a signal from outside of the insulating substrate to the driver IC. The wiring substrate and the signal input pad are electrically connected by the anisotropic conductive film. The wiring substrate covers the signal input pad and has a portion above the inspection pad that is cut away.

This configuration provides advantages including allowing for panel inspection and signal check of the driver IC after mounting the wiring substrate by simply removing the resin with a solvent.

Claims 2 and 3 depend from Claim 1 and include all the limitations of Claim 1.

Amended Claim 4 includes, *inter alia*, an insulating substrate, a signal line for transmitting a signal to a pixel formed in a display area composed of pixels on the insulating substrate, a driver integrated circuit (IC) mounted outside of the display area of the insulating substrate and electrically connected to the signal line, an inspection pad formed outside of the display area of the insulating substrate, electrically connected to the signal line, a signal input pad formed outside of the display area of the insulating substrate, for inputting a signal from outside of the insulating substrate to the driver IC, and an IC signal pad formed at a position corresponding to the driver IC on the insulating substrate. The IC signal pad is formed to connect the signal line and driver IC. The signal input pad, the IC signal pad and the inspection pad are covered with an anisotropic conductive film.

In this configuration, it is possible to cover the IC signal pad, the inspection pad, and the signal input pad with an anisotropic conductive film all at the same time, and reduce the complexity of depositing an ACF.

Claims 5-11, 14, and 15 depend from Claim 1 or Claim 4, and they include all the limitations of there parent claim.

Applicants respectfully traverse the outstanding ground of rejection because the outstanding Office Action fails to provide a *prima facie* case of obviousness by asserting prior art that, no matter how the prior art references are combined, does not teach every element of independent Claims 1 and 4, as amended.

To establish a *prima facie* case of obviousness, M.P.E.P. §2143 requires that three criteria must be met. First there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the references teachings. Second, there must be a reasonable expectation of success. Finally, the prior art references must teach or suggest all the claim elements.

As noted above, amended Claim 1 recites, *inter alia*, “the wiring substrate covers the signal input pad and has a portion above the inspection pad that is cut away.” Indeed, the combination of Ito and Hotta does not teach or suggest at least this element of amended Claim 1.

On the contrary, Ito only describes a liquid display apparatus that has a insulating substrate SUB1, a signal line formed on the insulating substrate SUB1, a driving IC electrically connected to the signal line, a inspection pad TEST covered with an anisotropic conductive film ACF 1, and a flexible board FPC covering the anisotropic conductive film ACF 1.¹

However, Ito does not teach or suggest that the wiring substrate should have a portion above the inspection pad that is cut away. That is, as shown in Figs. 14 and 15, the flexible board FPC covers the input wires Td with the anisotropic conductive film ACF1 interposed

¹ Ito, Figs. 3 and 15.

therebetween. In the display apparatus taught by Ito, it is not possible to inspect a panel and to check the signal of the driver IC after mounting the wiring substrate by simply removing the resin with a solvent. Thus, amended Claim 1 clearly patentably distinguishes over Ito.

Hotta does not cure the above-noted deficiencies in Ito. Hotta is not directed to a display device and was only cited to describe that an anisotropic film can include silicon, acryl, urethane, epoxy, and polyimide.

In view of the above-noted distinctions, Applicants respectfully submit that Claim 1 (and Claims 2, 3, 5, 6, 7, 10, 14, and 15) patentably distinguish over Ito and Hotta, alone or in combination.

With respect to the rejection of Claim 4 as unpatentable over the combination of Ito and Hotta, Applicants respectfully traverse the rejection.

Amended Claim 4 recites, *inter alia*, “wherein the signal input pad, the IC signal pad, and the inspection pad are covered with an anisotropic conductive film.” Indeed, the combination of Ito and Hotta does not teach or suggest this element of amended Claim 1.

On the contrary, Ito describes nothing about the IC signal pad and the inspection pad being covered with an anisotropic conductive film. Figs.14 and 15 only show that input wires Td are covered with an anisotropic conductive film ACF 1, and the bump BMP connected to the driving IC is covered with an anisotropic conductive film ACF 2.

Hotta does not cure the above-noted deficiencies in Ito. Hotta is not directed to a display device and was only cited to describe that an anisotropic film can include silicon, acryl, urethane, epoxy, and polyimide.

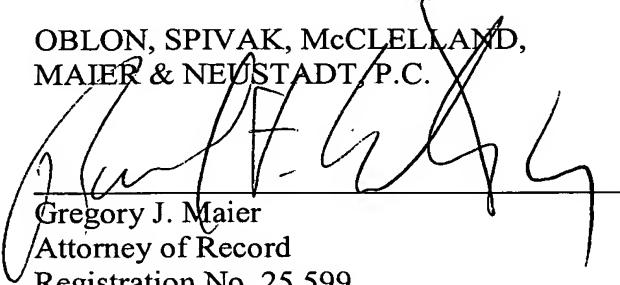
In view of the above-noted distinctions, Applicants respectfully submit that Claim 4 (and Claims 8 and 11) patentably distinguish over Ito and Hotta, alone or in combination.

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Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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